Chapter 4: Summaries of Risk and Preparedness

4 Overview

4.1 Wildland Fire Characteristics

An informed discussion of fire mitigation is not complete until basic concepts that govern fire behavior are understood. In the broadest sense, wildland fire behavior describes how fires burn; the manner in which fuels ignite, how flames develop and how fire spreads across the landscape. The three major physical components that determine fire behavior are the fuels supporting the fire, the topography in which the fire is burning, and the weather and atmospheric conditions during a fire event. At the landscape level, both topography and weather are beyond our control. We are powerless to control winds, temperature, relative humidity, atmospheric instability, slope, aspect, elevation, and landforms. It is beyond our control to alter these conditions, and thus impossible to alter fire behavior through their manipulation. When we attempt to alter how fires burn, we are left with manipulating the third component of the fire environment, the fuels which support the fire. By altering fuel loading and fuel continuity across the landscape, we have the best opportunity to determine how fires burn.

A brief description of each of the fire environment elements follows in order to illustrate their effect on fire behavior.

4.1.1 Weather

Weather conditions are ultimately responsible for determining fire behavior. Moisture, temperature, and relative humidity ultimately determine the rates at which fuels dry and vegetation cures, and whether fuel conditions become dry enough to sustain an ignition. Once conditions are capable of sustaining a fire, atmospheric stability and wind speed and direction can have a significant affect on fire behavior. Winds fan fires with oxygen, increasing the rate at which fire spreads across the landscape. Weather is the most unpredictable component governing fire behavior, constantly changing in time and across the landscape.

4.1.2 Topography

Fires burning in similar fuel conditions burn dramatically different under different topographic conditions. Topography alters heat transfer and localized weather conditions, which in turn influence vegetative growth and resulting fuels. Changes in slope and aspect can have significant influences on how fires burn. Generally speaking, north slopes tend to be cooler, wetter, more productive sites. This can lead to heavy fuel accumulations, with high fuel moistures, later curing of fuels, and lower rates of spread. The combination of light fuels and dry sites lead to fires that typically display the highest rates of spread. In contrast, south and west slopes tend to receive more direct sun, and thus have the highest temperatures, lowest soil and fuel moistures, and lightest fuels. These slopes also tend to be on the windward side of mountains. Thus these slopes tend to be “available to burn” a greater portion of the year.

Slope also plays a significant roll in fire spread, by allowing preheating of fuels upslope of the burning fire. As slope increases, rate of spread and flame lengths tend to increase. Therefore, we can expect the fastest rates of spread on steep, warm south and west slopes with fuels that are exposed to the wind.

4.1.3 Fuels

Fuel is any material that can ignite and burn. Fuels describe any organic material, dead or alive, found in the fire environment. Grasses, brush, branches, logs, logging slash, forest floor litter, conifer needles, and home sites (the structures) are all examples. The physical properties and characteristics of fuels govern how fires burn. Fuel loading, size and shape, moisture content and continuity and arrangement all have an affect on fire behavior. Generally speaking, the smaller and finer the fuels, the faster the potential rate of fire spread. Small fuels such as grass, needle litter and other fuels less than a quarter inch in diameter are most responsible for fire spread. In fact, "fine" fuels, with high surface to volume ratios, are considered the primary carriers of surface fire. This is apparent to anyone who has ever witnessed the speed at which grass fires burn. As fuel size increases, the rate of spread tends to decrease, as surface to volume ratio decreases. Fires in large fuels generally burn at a slower rate, but release much more energy, and burn with much greater intensity. This increased energy release, or intensity, makes these fires more difficult to control. Thus, it is much easier to control a fire burning in grass than to control a fire burning in timber.

When burning under a forest canopy, the increased intensities can lead to torching (single trees becoming completely involved) and potentially development of crown fire. That is, they release much more energy. Fuels are found in combinations of types, amounts, sizes, shapes, and arrangements. It is the unique combination of these factors, along with the topography and weather, which determine how fires will burn.

The study of fire behavior recognizes the dramatic and often-unexpected affect small changes in any single component has on how fires burn. It is impossible to speak in specific terms when predicting how a fire will burn under any given set of conditions. However, through countless observations and repeated research, the some of the principles that govern fire behavior have been identified and are recognized.

4.2 Elmore County Conditions

Elmore County is characterized by a persistently warm and arid environment, that limits non-cultivated vegetative communities to grass and brush rangelands. Xeric vegetation and hot, dry and windy conditions has resulted in a rich fire history, with relatively frequent fires. The last decade has seen the proliferation of Cheatgrass, an exotic grass species that is able to out-compete native bunchgrasses. Cheatgrass responds well to soil disturbance and is found in abundance along roadsides, driveways, new construction areas, and in recently burned areas. Over time, vegetative species composition in unmanaged or non-irrigated land has shifted toward fire prone species, particularly in high use areas where disturbance is common.

Elmore County has been experiencing some growth, particularly in and around Mountain Home. At the same time, the number and value of resources at risk is on the increase, as more and more homes are built in the midst of cured, fire-ready fuels. Human use is strongly correlated with fire frequency, with increasing numbers of fires as use increases. The combination frequent ignitions and flammable vegetation has greatly increased the probability that incendiary devices will find a receptive fuel bed, resulting in increased fire frequency. Discarded cigarettes, tire fires, and hot catalytic converters have increased the number of fires experienced along roadways. Careless and unsupervised use of fireworks also contributes their fair share to unwanted and unexpected wildland fires. Further contributing to ignition sources are the debris burners and "sport burners" who use fire to rid ditches of weeds and other burnable materials. Ignitions along Interstate 84 continue to be the leading source of human caused ignitions in the county.

Fire departments within Elmore County have reported a general increase in the number of fires within the county. Although there have been few homes lost to wildland fires in the recent past, the potential is growing. Fire departments feel as though pure luck has been on the side of many homeowners, as more and more fires seem to be controlled at the doorstep of residents' homes. It is quite probable that homes will eventually be lost to wildland fire. However, there are a number of actions that can be taken now that can decrease the probability that these events will occur.

4.2.1 County Wide Potential Mitigation Activities

There are four basic opportunities for reducing the loss of homes and lives to fires. There are many single actions that can be taken, but in general they can be lumped into one of the following categories:

- Prevention
- Education/ Mitigation
- Readiness
- Building Codes

4.2.1.1 Prevention

The safest, easiest, and most economical way to mitigate unwanted fires is to stop them before they start. Generally, prevention actions attempt to prevent human-caused fires. Campaigns designed to reduce the number and sources of ignitions can be quite effective. Prevention campaigns can take many forms. Traditional "Smokey Bear" type campaigns that spread the message passively through signage can be quite effective. Signs that remind folks of the dangers of careless use of fireworks, burning when windy, and leaving unattended campfires can be quite effective. It's impossible to say just how effective such efforts actually are, however the low costs associated with posting of a few signs is inconsequential compared to the potential cost of fighting a fire.

Slightly more active prevention techniques may involve mass media, such as radio or the local newspaper. Fire districts in other counties have contributed the reduction in human-caused ignitions by running a weekly "run blotter," similar to a police blotter, each week in the paper. The blotter briefly describes the runs of the week and is followed by a weekly "tip of the week" to reduce the threat from wildland and structure fires. The federal government has been a champion of prevention, and could provide ideas for such tips. When fire conditions become high, brief public service messages could warn of the hazards of misuse of fire or any other incendiary devise. Such a campaign would require coordination and cooperation with local media outlets. However, the effort is likely to be worth the efforts, costs and risks associated with fighting unwanted fires.

Fire Reporting: Fires cannot be suppressed until they are detected and reported. As the number and popularity of cellular phones has increased, expansion of the #FIRE program throughout Idaho may provide an effective means for turning the passing motorist into a detection resource.

Burn Permits: The issues associated with debris burning during certain times of the year are difficult to negotiate and enforce. However, there are significant risks associated with the use of fire adjacent to expanses of flammable vegetation under certain scenarios. Fire departments typically observe the State of Idaho Closed fire season between May 20 to October 20. During this time, an individual seeking to conduct an open or any type shall obtain a permit to prescribed the conditions under which the burn can be conducted and the resources that need to be on hand to suppress the fire, from a State of Idaho fire warden. Although this is a

statewide regulation, compliance and enforcement has been variable between fire districts. Tackling this issue is difficult. Typically, the duty falls to the chief of whichever fire protection district the burning is planned for. However, this leads to an increased burden on the fire chiefs, who are already juggling other department obligations with obligations to work and to home. There is also considerable confusion on the part of the public as to when a permit is necessary and the procedure for which to obtain the permit. The best-intentioned citizen may unknowingly break this law for a lack of understanding. Clearly, there is a need to coordinate this process and educate the public as when a permit is needed and the necessary channels to obtain a permit.

4.2.1.2 Education

Once a fire has started and is moving toward home or other values resource, the probability of that structure surviving is largely dependent on the structural and landscaping characteristics of the home as to whether the home will survive the passing fire front. Also of vital importance is the accessibility of the home to emergency apparatus. If the home cannot be protected safely, firefighting resources will not jeopardize lives to protect a structure. Thus, the fate of the home will largely be determined by homeowner actions prior to the event.

The majority of the uncultivated vegetation in Elmore County is comprised if grass and brush rangeland. Although these fuels are very flammable and can support very fast moving fires, fires in these fuel types tend to be of relatively low intensity. In many cases, following a few simple guidelines that reduce the ignitability of the home can easily protect homes. There are multiple programs such as FIREWISE that detail precautions that should be taken in order to reduce the threat to homes, such as clearing cured grass and weeds away from structures and establishing a green zone around the home.

However, knowledge is no good unless acted upon. Education needs to be followed up by action. Any education programs should include an implementation plan. Ideally, funds would be made available to financially assist the landowner making the necessary changes to the home. The survey of the public conducted during the preparation of this WUI Fire Mitigation Plan indicated that approximately 62% of the respondents are interested in participating in this type of an activity.

4.2.1.3 Readiness

Once a fire has started, how much and how large it burns is often dependent on the availability of suppression resources. In most cases, rural fire departments are the first to respond and have the best opportunity to halt the spread of a wildland fire. For many districts, the ability to reach these suppression objectives is largely dependent on the availability of functional resources and trained individuals. Increasing the capacity of departments through funding and equipment acquisition can improve response times and subsequently reduce the potential for resource loss.

In order to assure a quick and efficient response to an event, emergency responders need to know specifically where emergency services are needed. Continued improvement and updating of the rural addressing system is necessary to maximize the effectiveness of a response.

4.2.1.4 Building Codes

The most effective, all be it contentious, solution to some fire problems is the adoption of building codes in order to assure emergency vehicle access and home construction that does not “invite” a fast and intense house fire. Codes that establish minimum road construction

standards and access standards for emergency vehicles are an effective means of assuring public and firefighter safety, as well as increasing the potential for home survivability. County building inspectors should look to the fire departments in order to assure adequate minimum standards. Fire districts may want to consider apparatus that may be available during mutual aid events in order that the adopted standards meet the access requirements of the majority of suppression resources. In Elmore County, such standards may be drafted in consultation with the Fire Chiefs in order to assure accessibility is possible for all responding resources.

Coupled with this need is the potential to implement a set of requirements or recommendations to specify construction materials allowed for use in high risk areas of the county. While a resident of Chattin Flats may not put his or her structure at undue risk by the use of wooden decking materials, a shake roof, or wooden siding, the same structure in Atlanta would be at tremendous risk through this practice. The Elmore County Commissioners may want to consider a policy for dealing with this situation into the future as more and more homes are located in the wildland-urban interface.

4.3 Elmore County's Wildland-Urban Interface

Individual community assessments have been completed for all of the populated places in the county. The following summaries include these descriptions and observations. Local place names identified during this plan's development include:

Table 4.1. Elmore County Communities

Community Name	Planning Description	Vegetative Community	National Register Community At Risk?[1]
Atlanta	Community	Forestland	Yes
Dixie	Community	Forestland / Rangeland	No
Featherville	Community	Forestland	Yes
Glenns Ferry	City	Rangeland	Yes
Grand View / Chattin Flats	Community	Rangeland	Yes
Hammett	Community	Rangeland	Yes
King Hill	Community	Rangeland	Yes
Mayfield	Community	Rangeland	Yes
Mountain Home	City	Rangeland	Yes
Oasis	Community	Rangeland	No
Pine	Community	Forestland	Yes
Prairie	Community	Forestland / Rangeland	Yes
Tipanuk	Community	Rangeland	No

[1]Those communities with a "Yes" in the National Register Community at Risk column are included in the Federal Register, Vol. 66, Number 160, Friday, August 17, 2001, as "Urban Wildland Interface Communities within the vicinity of Federal Lands that are at high risk from wildfires". All of these communities have been evaluated as part of this plan's assessment.

Site evaluations on these communities are included in subsequent sections. The results of FEMA Hazard Severity Forms for each community are presented in Appendix II.

4.3.1 Mitigation Activities Applicable to all Communities

4.3.1.1 Homesite Evaluations and Creation of Defensible Space

Individual home site evaluations can increase homeowners' awareness and improve the survivability of structures in the event of a wildfire. Current management of the vegetation surrounding homes provides good protection; however, maintaining a lean, clean, green zone within 100 feet of structures to reduce the potential loss of life and property is recommended. Assessing individual homes in the outlying areas can address the issue of escape routes and home defensibility characteristics. Educating the homeowners in techniques for protecting their homes is critical in these hot, dry environments.

4.3.1.2 Travel Corridor Fire Breaks

Ignition points are likely to continue to be concentrated along the roads and railway lines that run through the county. These travel routes have historically served as the primary source of human-caused ignitions, particularly along Interstate 84. In areas with high concentrations of resource values along these corridors, plow or disk lines may be considered in order to provide a fire break in the event of a roadside ignition. By passage with a disk parallel to an access route can provide an adequate control line under normal fire conditions.

Alternatively, permanent fuel breaks can be established in order to reduce the potential for ignitions originating from the highway to spread into the surrounding lands. Application of a cheatgrass-specific herbicide such as Plateau followed by replanting with fire-retardant grass species such as Crested Wheatgrass can provide a longer-term firebreak.

In combination with these efforts, or in place of these efforts, concentrated livestock grazing within a corridor paralleling these travel routes is suggested; especially along Interstate 84. This effort will require cooperation between landowners, land managers, the Elmore County Cattlemen's Association, and individual ranchers to accomplish. In practice, this recommendation will necessitate the construction of temporary or permanent fencing outside of the right-of-way adjacent to the highway, parallel to the existing fence line that parallels the interstate, approximately 500 feet to 1,000 feet away (or more). By segmenting the corridor into smaller units (½ mile to 1 mile long), intensive cattle grazing of the fine fuels in this area during the late spring and summer may reduce the probability of human created ignitions (and lightning ignited fires) from spreading rapidly to the rangeland where cities, towns, and communities (people) are located. This option will require ranchers to supplement feed, to truck water and to manage water-troughs intensively by moving them as the browse (fine fuels) is removed.

This latter option is not without potential negative impacts. Some have suggested that cattle may introduce or increase the spread of noxious weeds, have negative impacts on riparian areas, or negatively impact certain threatened or endangered species. Obviously, these concerns need to be addressed during the implementation of this type of fuels mitigation treatment. Also, it is important to note that this type of treatment has not specifically been researched as a fire mitigation tool. That fact, however, does not negate the empirical observations of many land managers who have observed (and fought) wildfires in rangelands where livestock graze and a decrease in intensity and even the rate of fire spread is seen. We urge willing land owners and willing ranchers to cooperate in this effort to ascertain if this wildland fire mitigation treatment is a feasible treatment option or not.

4.3.1.3 Power Line Corridor Fire Breaks

The treatment opportunities specified for travel corridor firebreaks apply equally for power line corridors. The obvious difference between the two is that the focus area is not an area parallel to and adjacent to the road, but instead focuses on the area immediately below the infrastructure element. Protection under the high-tension power lines maintained by Idaho Power is strongly recommended. This may be a just the right place to test intensive livestock grazing practices as a tool for reducing fine fuels around significant infrastructure.

4.4 Rangeland Communities in Elmore County

Communities of Oasis, Tipnuk, Mountain Home, Grand View, Hammet, Glenns Ferry, King Hill.

4.4.1 Vegetative Associations

These communities lie in the vegetative ecosystem known as the "sagebrush steppe" community. The Sagebrush Steppe Ecosystem is widespread over much of southern Idaho, eastern Oregon and Washington, and portions of northern Nevada, California and Utah. The southern Idaho portion of this ecosystem occurs over a variety of landforms and vegetation types. Native vegetative communities range from vast expanses of grasslands resulting from recent fires, to old-growth sagebrush communities.

The steppe is characterized by a persistently warm and arid environment, that limits non-cultivated vegetative communities to grass and brush rangelands. Xeric vegetation and hot, dry and windy conditions has resulted in a rich fire history, with relatively frequent fires. The last decade has seen the proliferation of Cheatgrass (*Bromus tectorum L.*), an exotic grass species that is able to out-compete native bunchgrasses. Cheatgrass responds well to soil disturbance and is found in abundance along roadsides, driveways, new construction areas, and in recently burned areas. Over time, vegetative species composition in unmanaged or non-irrigated land has shifted toward fire prone species, particularly in high use areas where disturbance is common.

Agricultural and irrigation practices surrounding some communities within the Snake River Valley have created a patchwork of green, lush vegetation and cured rangeland. This patchwork helps to break the continuity of fuels that are available to burn. This pattern is particularly apparent around Grand View, Hammett, and Glenns Ferry. Cultivation has also broken fuel continuity in areas surrounding Mountain Home. However, dry fuels become continuous above the irrigated zone, providing a consistent fuel bed for fire spread. There is little break in the continuity of fuels surrounding the communities of Oasis and Tipnuk. The majority land outside towns and communities is dominated by xeric vegetation type, with few breaks in continuity. Under dry and windy conditions, fires in these vegetative types can burn thousands of acres in a single burning period.

4.4.2 Overall Fuels Assessment

Fuels throughout the entire steppe community in Elmore County are quite consistent, dominated by grasslands and sage. Areas dominated by grass with scattered sage can be described as Fuel Models 1 and 2 (FM1 and FM2). Fires in these fuel types tend to be spread rapidly, but burn at relatively low intensity. Where grasses become less consistent, wind is needed to push fires through the bunchgrass. Sage-dominated fuel complexes can be described as FM6. Typically, fires in this fuel type require a moderate wind in order to push the fire through the fuels. Without wind, the fire will drop to the ground. In the absence of fine fuels, fire spread will stop. Wind driven fires in sage will generate relatively large flame lengths and burn with a higher

intensity than fires in FM 1 and 2. However, burn time is short and burned areas cool quickly after passage of the fire front.

Fire behavior and fire regimes have been altered due to the proliferation of cheatgrass. The fine structure and it's ability to completely dominate disturbed sites provides a dry, consistent fuel bed for fire. Where the exotic has encroached in sagebrush stands, it now provides a consistent bed of fine fuels that actively carry fire without the effect wind. Because of these characteristics, cheatgrass will support fire during times of the year and under conditions which native vegetation would not sustain a wildland fire.

Cheatgrass has taken over more than 50% of the nearby Snake River Birds of Prey National Conservation Area, with detrimental effects to native flora and wildlife. Cheatgrass can reduce the fire recurrence interval in sagebrush grasslands dramatically, from 20 to 100 years for a natural cycle, to three to five years on cheatgrass-dominated sites. Continued natural and human-caused disturbances will favor cheatgrass, shifting species composition away from native species toward this highly flammable exotic. As a consequence, the landscape will become increasingly fire prone over time. Fuels surrounding human activities will continue to become increasingly receptive to ignition sources, increasing the frequency of wildland fires that burn with rapid rates of spread, but at relatively low intensities.

Community Assessments: The majority of homes and structures within and surrounding these communities are at low risk of loss to wildland fire. The prevalence of light grass and sage fuels pose a low threat to homes surrounded by these fuels, as fire typically spreads quickly and burns at relatively low intensities. However, there are a number of individual homes that are at much higher risk to wildland fire loss in the area, largely due to use of highly ignitable materials in home construction, or by lack of defensible space surrounding the home. Home defensibility practices can dramatically increase the probability of home survivability. The amount of fuel modification necessary will depend on the specific attributes of the site. Considering the high spread rates typical in these fuel types, homes need to be protected prior to fire ignitions, as there is little time to defend a home in advance of a grass and range fire.

4.4.3 Individual Community Assessments

4.4.3.1 Oasis

Oasis is a small but growing community 25 miles southeast of the Boise. The community is accessed via Desert Winds Road, off Interstate Highway 84 at Exit 74. The community presently consists of roughly 45 homes. The Rancho del Sol Soles Rest Creek Developments offer an additional fifteen or so lots yet to be built. Oasis has recently established a rural fire district for fire protection for the community. Volunteerism within the community has been high, helping to raise awareness of fire hazards in both the home and the wildlands. Because of these characteristics, the overall risk to community of Oasis due to wildland fire is low.

4.4.3.1.1 Fuels Assessment

Most of the land surrounding the community is sage and grasslands in BLM ownership. Cattle do actively graze on the BLM lands, however this grazing activity does not significantly reduce the fine fuel loading, particularly the fine fuels contributed by the proliferation of cheatgrass. Charred sage stems in the area are evidence of past range fires in the vicinity of the community. These disturbance events have allowed the cheatgrass to dominate, resulting in thick monocultures of the flammable grass. The invasive has also encroached into maturing stands of sage, out competing the native bunch grasses and creating continuous fuel beds that are

capable of supporting fire. These conditions predispose the entire landscape to rapid fire spread. Stagnate stands of dead sagebrush approximately 4 to 5 feet tall are also present due to the lack of the natural fire regime. Historically, sagebrush rangelands would burn relatively frequently at low to moderate intensities; thus, revitalizing the stand and providing for new growth. Due to fire suppression activities over the past few decades, these stands have become unnaturally dense and over mature creating a significantly higher risk of a severe, stand replacing wildfire.

The most likely ignition source in these areas is via the travel corridors. Interstate 84 as well as Desert Winds and Ditto Creek provide the most likely sources of human caused ignition. There has been some treatment along the more traveled routes in the area in the form of plowed fuel breaks immediately adjacent to the roads in order to reduce the potential for a discarded cigarette or other incendiary device to ignite wildland fuels. This treatment is quite effective and should be encouraged.

4.4.3.1.2 Escape

Desert Winds and the Ditto Creek roads are the primary access route to and from Oasis, providing two routes of escape. A rangeland fire may temporarily cut-off travel on either of these routes or others depending on the direction of fire.

4.4.3.1.3 Infrastructure

There are a number of high-tension power lines that run through this community. These lines could be at some risk to arcing in the event of a wildland fire. It is also possible that the wooden poles that support the lines could burn, creating significant safety issues and disruption of the power supply.

4.4.3.1.4 Community Risk Assessment

Overall, the risk of loss due to wildland fire is low. Most of the homes within the community are of recent construction and have utilized some fire-resistant materials. Approximately 50% of the homes in the area have cleared flammable vegetation away from structures to provide a fire break protecting the home against fast-moving grass fires. The above ground propane tanks observed were also within the defensible space extending from the home, reducing the risk of explosion in the event of a wildland fire. Roads within the area provide marginal access, are typically signed, and are of adequate size to accommodate emergency traffic.

Water availability is always an issue in arid landscapes. No hydrant system is available within the community, instead relying on the water handling capabilities of the fire district. These resources can be quickly exhausted in the event of a fire. Expansion of water handling capability would be an asset to the community.

4.4.3.1.5 Potential Mitigation Activities

In addition to continued homeowner education and establishment of defensible space, the community may consider the establishment of a network of dry hydrants in order to augment water sources. The Oasis VFD has identified a number of needs in order to bolster its fire fighting capabilities. Aggressively pursuing grants and fire assistant opportunities from the County will likely lead to the development of well-equipped fire department. Members of the Oasis VFD are actively pursuing mitigation activities in accordance with the Firewise program as well as encouraging Oasis residents to perform Firewise activities around their property.

4.4.3.2 Tipanuk

Tipanuk is community comprised largely of modular and mobile homes, off Ditto Creek Road, immediately adjacent to Interstate 84. Although Tipanuk abuts the Interstate right-of-way, there is no direct access from I-84 to Tipanuk. Access from I-84 is via Exit 74 to the west, or from exit 90 via Old Highway 30 to the east. Tipanuk is located east of Oasis and west of Mountain Home.

There is concentrated ranching activities at Tipanuk Farms on the north side of the community, with grazing in the surrounding BLM lands.

4.4.3.2.1 Fuels Assessment

The fuels surrounding Tipanuk are primarily grass and sage rangeland fuels, with a significant component of cheatgrass. As in the vicinity of Oasis, it is apparent as to the fire and overall disturbance history of the area. Where disturbance has occurred, cheatgrass tends to dominate, providing consistent grass fuel bed around the entire community. In many cases, these fuels are consistent to residences, providing an avenue for fire spread from the wildland to the home.

4.4.3.2.2 Infrastructure

As in Oasis, high-tension power lines run through the community. These lines could be compromised in the event of a rangeland fire, although the potential for an event is low.

4.4.3.2.3 Escape

Ditto Creek to the west and Old Highway to the east provide escape routes from Tipanuk. Again, escape routes would likely only be compromised for a short time because of the short burn times of fires in these fuel types.

4.4.3.2.4 Community Risk Assessment

Tipanuk is currently does not have any structural fire protection. This significantly increases the overall fire risk to the community. Lack of suppression resources increases the potential for small wildland fires to grow, as well as for fires to spread from structures to the wildlands. Because of this, the potential risk of loss to any fire event is high.

A number of homes have more than adequate defensible space surrounding the home, particularly where cattle or horses are allowed to graze up to the home, or where landscaping techniques keep fuels trimmed. However, there are multiple homes that have little to no defensible space. As mentioned, Tipanuk is comprised primarily of mobile homes. Although the aluminum siding typically used on the exterior of mobile homes is quite fire resistant, this resistance is undermined if skirted with flammable materials, or if skirting is absent all together. This is particularly true when dried fuels and other combustible refuse are present along the exterior.

The greatest ignition potential is from roadways running through the community, namely Ditto Creek Road and Interstate 84. The flammable cheatgrass adjacent to these corridors is highly receptive of incendiaries. Also, human activities such as welding and trash burning provide ample ignition sources in these highly flammable environments. Fires in these fuels spread rapidly, especially when driven by wind (*which is generally blowing in this area*). This further increases the importance of creating defensible space around homes and outbuildings.

4.4.3.2.5 Potential Mitigation Activities

It is strongly recommended that Tipanuk seek incorporation into a fire district for basic fire suppression services. This would greatly reduce the threat to the community. Without basic structural fire protection, all other mitigation activities may be without impact. Often, fuels mitigation activities slow a fire's advance or reduce its intensity long enough for rural or city fire protection to arrive. Without the services of a rural fire department in Tipanuk, additional treatments will only have marginal impacts. It may, however, provide for protection of people living in those homes, giving them enough time to evacuate. On that basis alone, mitigation treatments are justified and recommended.

This community should also consider establishing dry hydrants or other water sources to assure adequate water supply for fire suppression. Due to the current lack of suppression resources, residents should take extra precautions to protect their property. Homeowner education and creation of defensible space should be emphasized.

4.4.3.2.6 Coordination with the Comprehensive Plan

The Elmore County Comprehensive Growth Plan (2004) details the following General Statements of Community goals for Tipanuk. These goals are incorporated into this plan and are consistent with this intent of this planning effort.

6. **Natural Resources** - Protect all waterways and drains within the Tipanuk Area from incompatible land use encroachment and development. Support advanced wildfire-fighting capability to protect the area from wildfire damage. Re-vegetation to occur after all wildfires.
7. **Hazardous Areas -** In any area deemed hazardous by County Officials, require a Conditional Use Permit procedure as a method of controlling or limiting development.
8. **Public Services, Facilities and Utilities -** Continue to expand the electrical systems to get three-phase power throughout the community and outlying areas at reasonable cost. Support expansion of the Oasis Volunteer Wildland Fire District to include all of the Tipanuk Area Community. Continue efforts to organize volunteers for the Oasis Wildland Fire District. Create an approved centralized community solid waste collection facility.

4.4.3.3 Mountain Home

Mountain Home is the largest community in Elmore County, with over 10,000 residents. The primary access is via Interstate 84 from the east or west, Highway 20 from the north and Highway 51 from the south. Mountain home is home to the Mountain Home Air Force Base, located 12 miles south of the city center on Highway 51.

4.4.3.3.1 Fuels Assessment

Grass and sage plant communities primarily dominate the fuels surrounding Mountain Home. Agriculture and ranching activities increase to the west of town, breaking up the natural continuity of the fuels. The fuels west of North Main Street (Business I-84) in the vicinity of Simplot Feed Terminal are dominated by continuous expanses of mature sage. A wind-driven fire in these fuels would produce large flame lengths and relatively high intensities. However, these fuels are largely isolated from any homes. The feed terminal itself has adequate defensible space to protect it in the event of a wildland fire. To the south and north, fuels are primarily grass with a lesser component of sage.

4.4.3.3.2 Escape

There are multiple escape routes from most homeowners, visitors, and ranches on the outskirts of Mountain Home. It is unlikely that the main travel routes would be compromised for any duration of time in the event of a wildland fire.

4.4.3.3.3 Infrastructure

The Evander Andrews Power Complex and transfer station are located to the north and west of Mountain Home. Also in this vicinity is the Holly Corporation fuel transfer depot. Although there are some wildland fuels surrounding these important sites, the facilities have adequate defensible space, with little direct threat posed by wildland fire.

4.4.3.3.4 Community Risk Assessment

The overall risk of casualty loss to Mountain Home is relatively low. However, like many areas throughout the west, Elmore County and Mountain Home has been experiencing some growth in recent years. The number and value of resources at risk continues to increase, as more and more homes are built in the midst of cured, fire-ready fuels.

Larger communities such as Mountain Home often see the most significant threats from wildfire along the perimeter of the community. This is not always the case in smaller communities where a house fire can spread to the surrounding wildland fuels and then back to threaten adjacent homes. The majority of homes along the periphery of Mountain Home have adequate defensible space, with some exceptions. The majority of homes have also been built using fire-resistant materials, further reducing the threat of home loss.

The Mountain Home City/Rural Fire Department provides fire protection for the community. The Department maintains four stations in Mountain Home. Fire protection for the Mountain Home Air Force Base is provided on site through the Mountain Home Air Fire Base Fire Department.

As is typical throughout the dry uplands throughout Elmore County, water availability is limited in the areas outside of Mountain Home. No hydrant system was observed north of I-84 or outside city limits west of town. Surface water also appears scarce, with the Mountain Home Reservoir completely dry in all but the wettest seasons.

The greatest ignition potential in the vicinity of Mountain Home is associated with the roads and travel corridors. Also adding to the potential are other human ignition sources, such as fireworks, debris burning, welding and such.

4.4.3.3.5 Potential Mitigation Activities

In addition to the mitigation activities previously presented, officials should consider establishment of additional dry hydrants or expanding the existing hydrant system. Water storage in this area is comparatively limited during the peak of the wildfire season and would be greatly improved by storage tanks located strategically around the outskirts of the community, with links to the dry-hydrant system. In this way, water could be supplied to the lines as needed during fire emergencies without maintaining all of the water lines, all the time.

Additionally, home building codes should be expanded to include building materials in the highest risk areas for wildland fire, as it appears as though growth will continue in and around Mountain Home.

4.4.3.3.6 Coordination with the Comprehensive Plan

The Elmore County Comprehensive Growth Plan (2004) details the following General Statement of Community goals for Mountain Home. These goals are incorporated into this plan and are consistent with this intent of this planning effort.

7. **Hazardous Areas -** In any area deemed hazardous by County Officials, require a Conditional Use Permit procedure as a method of controlling or limiting development.

4.4.3.4 Chattin Flats / Grand View

The communities of Chattin Flats and Grand View are accessed via Highway 51 from Mountain Home, or from Highway 78 south of the Snake River. Grand View proper is south of the Snake River, in Owyhee County. Chattin Flats is located in Elmore County, north of the Snake River. The Grand View VFD provides protection to the Simplot Feed Lot at the bottom of Chattin Hill, south to the river. Chattin Flats is the only concentration of residential structures in the area, with a few other ranch homes scattered throughout the river valley.

4.4.3.4.1 Fuels Assessment

Native fuels are isolated to the Ted Trueblood Wildlife Management Area adjacent to the Snake River. This area is completely surrounded by roads as well as by irrigated and grazed lands. As such, this area does not pose any threat to homes or infrastructure. This area is a characteristic “occluded” wildland fuels situation.

There is little to no threat to the homes in Chattin Flats or the remainder of the valley from wildland fire. The grazing and irrigation of the valley bottom essentially excludes the potential for wildland fire. Thus, there is no threat to homes, infrastructure, or to transportation routes.

4.4.3.4.2 Potential Mitigation Activities

No activities are necessary for the area.

4.4.3.4.3 Coordination with the Comprehensive Plan

The Elmore County Comprehensive Growth Plan (2004) details the following General Statements of Community goals for Chattin Flats. These goals are incorporated into this plan and are consistent with this intent of this planning effort.

6. **Natural Resources** - Promote the Snake River as a "working river" and continue a multiple use management policy. Protect the Chattin Flats rural and community areas from incompatible land use encroachment and development to preserve natural land resources.
7. **Hazardous Areas -** In any area deemed hazardous by County Officials, require a Conditional Use Permit procedure as a method of controlling or limiting development.

4.4.3.5 Glenns Ferry, Hammett and King Hill

Both Glenns Ferry and Hammett lie on the banks of the Snake River, south of I-84. King Hill lies to the north of Glenns Ferry, on the Snake River, off Old Highway 30. The majority of land surrounding these communities agricultural or ranching land. Because of the similarity of these communities, they will be discussed together.

4.4.3.5.1 Fuels Assessment

As mentioned, most land surrounding these communities is pasture or irrigated farmland. The native fuels that due exist are relatively isolated, posing little direct threat to structures or infrastructure within the communities. The overall threat to loss from wildland fire to these communities is low.

To the north of each community are vast expanses of rangeland dominated by grass and sage. The Snake River Valley is frequently subject to high winds. The combination of high winds and flammable rangeland fuels have the potential to generate large, extensive range fires covering thousands of acres. Although these fires pose little direct threat to communities, such fires can significantly impact available grazing land.

4.4.3.5.2 Infrastructure

High-tension power lines run to the north of both Hammett and Glenns Ferry. These lines could be compromised in the event of a rangeland fire, although the potential for such an event is low. Mitigation activities consistent with the recommendation discussed above would be warranted.

4.4.3.5.3 Escape

All three communities are accessed via multiple travel routes. There is little potential for residents to be cut-off from all escape routes simultaneously.

4.4.3.5.4 Community Assessment

Glenns Ferry City/ King Hill Rural Fire Department provides structural fire protection for the two communities. The Lower Snake River BLM staffs an additional wildland engine at Hammett. The combined influence of the agricultural activity, the topographic position of the communities, and light fuel loading, produce an area that is at little risk to casualty loss due to a wildfire. Most homes are buffered by either irrigated farm or pastureland, or by green grass that provides and adequate buffer from rangeland fires.

4.4.3.5.5 Potential Mitigation Activities

In addition to the mitigation activities applicable to all communities, these communities should consider improving drafting sites along the Snake River. This may reduce the turn-around time for reloading water tenders, increasing fire-fighting effectiveness. The precise specifications of drafting sites will be dictated by existing equipment and equipment potentially acquired in the near future.

4.4.3.5.6 Coordination with the Comprehensive Plan

The Elmore County Comprehensive Growth Plan (2004) details the following General Statement of Community goals for King Hill, Hammett, and Glenns Ferry. These goals are incorporated into this plan and are consistent with this intent of this planning effort.

7. **Hazardous Areas -** In any area deemed hazardous by County Officials, require a Conditional Use Permit procedure as a method of controlling or limiting development.

4.5 Forestland Communities of Elmore County

This section includes assessments for the communities of Atlanta, Dixie, Featherville, Pine, and Prairie.

4.5.1 Vegetative Associations

Vegetative structure and composition within the northern half of Elmore County is closely related to elevation, aspect and precipitation. Warm and dry environments characterize the undulating topography of the region which transitions from the sage steppe plant communities of the south to the forested ecosystems of the north. These conditions limit the establishment of woody tree species, allowing for the dominance of sage and bunchgrass communities. These vegetative communities contain high fuel accumulations that burn rapidly at relatively low to moderate intensities. These fuel types are common in central Elmore County, especially around Prairie and where the Foot Hills fire ravaged. This “transition zone” sometimes experiences extreme fires as moisture and temperatures can combine to stress forest tree species while allowing sagebrush and bunch grasses to grow thick and tall. This combination can lead to extreme fire behavior.

At higher elevations and in the mountainous river canyons, moisture becomes less limiting due to a combination of higher precipitation and reduced solar radiation. Vegetative patterns begin to show a shift toward forested communities dominated by ponderosa pine and Douglas-fir at the lower elevations, transitioning to lodgepole pine and subalpine species at the highest elevations. The forested conditions possess a greater quantity of both dead and down fuels as well as live fuels. Rates of fire spread tend to be lower than those in the grass and shrub lands, however, intensities can escalate dramatically, especially under the effect of slope and wind. These conditions can lead to control problems and potentially threaten lives, structures and other valued resources.

Between the shrub and grass communities and the forested lands is a transitional area that has components of both vegetative communities. These warm and dry forests have an abundance of highly flammable vegetation and open stand conditions. These attributes allow for rapid fire spread through the surface fuels, with fuel concentrations resulting in dramatic increases in intensity. These areas are valued for their scenic qualities as well as for their proximity to travel corridors. These attributes have led to increased recreational home development and residential home construction in these areas. The juxtaposition of highly flammable forest types and rapid home development will continue to challenge the ability to manage wildland fires in the wildland-urban interface.

4.5.2 Overall Fuels Assessment

Fuel is any material that can ignite and burn. Fuels describe any organic material, dead or alive, found in the fire environment. Grasses, brush, branches, logs, logging slash, forest floor litter, conifer needles, and home sites are all examples. The physical properties and characteristics of fuels govern how fires burn. Fuel loading, size and shape, moisture content and continuity and arrangement all have an affect on fire behavior. Generally speaking, the smaller and finer the fuels, the faster the potential rate of fire spread. Small fuels such as grass, needle litter and other fuels less than a quarter inch in diameter are most responsible for fire spread. In fact, “fine” fuels, with high surface to volume ratios, are considered the primary carriers of surface fire. This is apparent to anyone who has ever witnessed the speed at which grass fires burn. As fuel size increases, the rate of spread tends to decrease, as surface to volume ratio decreases. Fires in large fuels generally burn at a slower rate, but release much more energy, burn with much greater intensity. This increased energy release, or intensity, makes these fires more

difficult to control. Thus, it is much easier to control a fire burning in grass than to control a fire burning in timber.

When burning under a forest canopy, the increased intensities can lead to torching (single trees becoming completely involved) and potentially development of crown fire. That is, they release much more energy. Fuels are found in combinations of types, amounts, sizes, shapes, and arrangements. It is the unique combination of these factors, along with the topography and weather, which determine how fires will burn.

The study of fire behavior recognizes the dramatic and often-unexpected affect small changes in any single component has on how fires burn. It is impossible to speak in specific terms when predicting how a fire will burn under any given set of conditions. However, through countless observations and repeated research, the some of the principles that govern fire behavior have been identified and are recognized.

Community Assessments: The majority of homes and structures within and surrounding these communities are along a spectrum from low to moderate to high risk of loss to wildland fire. Individual characteristics of each community and structure dictate the risk factors. The prevalence of tree, shrub, and sage fuels pose a moderate to high threat to homes surrounded by these fuels, as fire typically spreads quickly through the grasses and sage but burns at relatively high intensities in the brush and forest tree fuels, especially where forest health is a factor. Many homes are at low risk because of the management of fuels in the area immediately surrounding the structures and their access routes. There are a number of individual homes that are at much higher risk to wildland fire loss in the area, largely due to use of highly ignitable materials in home construction, or by lack of defensible space surrounding the home. Home defensibility practices can dramatically increase the probability of home survivability. The amount of fuel modification necessary will depend on the specific attributes of the site. Considering the high spread rates possible in these fuel types, homes need to be protected prior to fire ignitions, as there is little time to defend a home in advance of fire.

4.5.3 Individual Community Assessments

4.5.3.1 Atlanta

Atlanta is located in the far northeastern reaches of the county. Once a thriving mining and logging center, Atlanta now is home to a rural population base serving recreation interests, retirees, and seasonal visitors. The US Forest Service has a station here but no fire fighting equipment is maintained here. This beautiful community is nestled into vast forests along the Middle Fork of the Boise River. All of the homes in this community are concentrated on the small holdings of private lands, surrounded by US Forest Service managed forests. Forest tree species are thick around the community and within it, giving most of the risk factors to the defensibility of this Elmore County community.

4.5.3.1.1 Fuels Assessment

Fuel models 8, 9 and 10 are the most common in the forestlands surrounding the town site. Fires these fuel types tend to burn at a high intensity with variable spread rates. Forest health is variable with some pockets of diseased and insect infected trees scattered across the landscape. These pockets of dead and dying trees increase the risk but do not dominate the risk assessment. The natural condition of these forests places them at an increased challenge to control after ignition has occurred.

During the assessment of this Wildland-Urban Interface Wildfire Mitigation Plan, the Hot Creek Fire was ignited along the Middle Fork of the Boise River and spread in all directions, threatening the community of Atlanta. Fortunately, none of the homes in this community were lost, but they were saved only because of the intensive efforts of local residents, the US Forest Service, and the Atlanta Rural Fire Department to implement fuels reduction projects, and reinforce the fire lines between the community and the fire (to the west). It is obvious to the authors of this plan that the homeowners and residents of Atlanta were fortunate that no homes or lives were lost during this fire event.

4.5.3.1.2 Infrastructure

Local power lines provide electricity to this community along the Middle Fork of the Boise River Road. There is only one supply of power into the community although many homeowners and business owners have portable and stationary generators used when the main power is out.

4.5.3.1.3 Escape

Access into and out of Atlanta is a challenge. The primary access is along the Middle Fork of the Boise River Road. This two-lane “forest highway” (gravel) leads from Atlanta to Boise and surrounding communities. Secondary access is provided along the James Creek Road. This secondary access is a primitive road, narrow, and intended to be a 4x4 path for forestry and recreational uses connecting Atlanta to Rocky Bar, Featherville, and Pine. However, when the Hot Creek Fire of 2003 closed the Middle Fork of the Boise River Road, the James Creek Road became the only terrestrial access.

The James Creek Road is narrow, steep in places, and poses problems for vehicles with a limited clearance. In addition, at least one bridge along this route is not rated for heavy vehicles such as water tenders and other large vehicles. The authors of this plan witnessed an Atlanta residents trying to use the James Creek Road driving an RV (Winnebago) to escape the threatened community. It not only scraped the oil pan, but it overheated on the first grade (climbing 2,000 feet), blocking all traffic until it was moved.

Because the James Creek Road is vitally important as a secondary access point in and out of Atlanta, it is recommended that it be treated as a significant infrastructure component of the county and treated to implement better fuels management along its path, and to create a wider travel path where possible. In addition, improvements to the travel surface that would allow a lower rated vehicle to pass is recommended.

4.5.3.1.4 Community Assessment

Prior to the Hot Creek Fire’s arrival in July 2003, assessments of the community were made. It was determined at the time that the vast majority of the homes in this community were in need of home defensible site treatments and that the community in general is in need of a larger, community defensible zone treatment. The forest fuels around and inside of the community are significant with surface fuels, ladder fuels, and crowns that could carry the fire during extreme fire weather conditions. Fuel Models 8, 9, and 10 can be found through and around the community.

During the Hot Creek Fire, the US Forest Service and local residents teamed up to implement fuels reduction activities around homes in this community and create fire breaks in strategic locale. While these treatments were excellent and targeted at reducing the highest buildups of fuels, it remains to be seen if the treatments will be maintained after the ensuing spring growth

replaces some of the fuels. A continuous, targeted fuels reduction program is needed for Atlanta homes and surrounding areas.

4.5.3.1.5 Potential Mitigation Activities

The fuel buildup around homes is the limiting factor for Atlanta. The reduction of fuels around homes would serve as a first step of defensibility again future wildland fires in this area. The Hot Creek Fire was not the only fire to threaten this community in recent history. Future fires are likely. Home site defensibility zones may not be enough to protect the people and structures in this area. A community defensible zone that uses natural terrain breaks, past fire boundaries, and other features to create a shield of treated fuels surrounding the community at an extended distance is strongly recommended. In order to carry this out, it is recommended that the edge of the area burned by the Trail Creek Fire (2000) be managed by keeping vegetation in a zone up to 200 feet wide treated of new fuels. This can be accomplished through prescribed burning or mechanical treatments, or both. The idea is to create an occluded island of treated fuels in and around the community so that future fires do not have the destructive potential past fire have. This is not to set the expectation that the community if treated will not burn, but to decrease the necessity for wildland fire fighters to abandon the fire line in favor of implementing fuels treatments in and around the community during a wildland fire.

The existence of a formal rural fire protection district is a great asset to the community. They have been and continue to be a great resource for the community of Atlanta. This district will be discussed in the Resources and Capabilities section (next) but it is recommended that augmentation to their resources be implemented to further provide protection for this community.

A homeowner education program should be implemented to advise homeowners about 'firesafe' landscaping and home construction materials. Given the rural nature of this community, and observations made while visiting with local residents, it is obvious that many living here are very aware of the need for fuels mitigation in and around the community.

4.5.3.1.6 Coordination with the Comprehensive Plan

The Elmore County Comprehensive Growth Plan (2004) details the following General Statements of Community goals for Atlanta. These goals are incorporated into this plan and are consistent with this intent of this planning effort.

8. **Natural Resources** - Protect the Middle Fork of the Boise River and all waterways and the Atlanta rural and community areas from incompatible land use encroachment and development. Support advanced wildfire-fighting capabilities to protect the area from wildfire damage. Re-vegetation to occur after all wildfires. Encourage and support mining and timber harvest to develop and continue in the Atlanta area.
9. **Hazardous Areas -** In any area deemed hazardous by County Officials, require a Conditional Use Permit procedure as a method of controlling or limiting development.
10. **Public Services, Facilities and Utilities -** Continue to expand the electrical systems to get power throughout the community and outlying areas at reasonable cost. Support the development of alternate energy systems in Atlanta to allow business growth. Encourage Elmore County Officials to help fund the Atlanta Community fire and public safety services with County funding. Upgrade to a modern, centralized community solid waste transfer facility. Seek to install a community sign/message board near the entrance to the community to provide useful information. Support development of a community drinking water system.

4.5.3.2 Dixie

Dixie is a small community of homes populated by many structures built over the past 5 decades. Dixie is located approximately 2 miles north of Highway 20 and 12 miles northeast of Mountain Home. Most of the homes are scattered along the valley and meet the criteria of being a rural community. There is an agricultural nature to the area with undulating topography. A few homes exist in the outlying areas of Dixie, in areas where livestock grazing occurs. Dixie is located south of Anderson Ranch Reservoir, a destination for many recreational users during the wildfire season.

4.5.3.2.1 Fuels Assessment

Fuel models 1 and 2 are common across this area. Fires in these fuel types tend to burn at a low intensity but can spread rapidly. Mountain big sagebrush and cheat grass are the dominant vegetation. Widely scattered pockets of timber can be found here as they are usually associated with a home site. Fuels in forested areas tend to be FM8 and FM10. Grazing by cattle is common, which tends to control the abundance of fine fuels. The overall wildland fire risk to the community is limited due to the agricultural activity in the area.

Most visitors to this area are either on their way to Anderson Ranch Reservoir or Pine, Featherville, or Sun Valley. Few visitors are looking to come directly to Dixie as their destination. The primary access routes used are narrow roads (some gravel) with little room for vehicles to pull off the road. Because of this there is a potential for exhaust ignited fires to start.

4.5.3.2.2 Infrastructure

High-tension power lines run to the north from Anderson Ranch Reservoir in the direction of Boise. These lines could be compromised in the event of a rangeland fire. Mitigation activities consistent with the recommendation discussed above (infrastructure protection using intensive livestock grazing) should be considered. Local power supply lines run through this community and surrounding areas carrying power to the local homes.

4.5.3.2.3 Escape

Access to Dixie is good via Highway 20, a major access route in the area. Many escape routes are available to residents in the eventuality of a wildland fire. In the event that an evacuation would be called for, there would most likely be multiple avenues to utilize.

4.5.3.2.4 Community Assessment

Dixie residents have no structural fire protection for their homes. Wildland fire protection resources are available from the Forest Service Ranger station located to the north and from Mountain Home. Ample water sources for fire suppression are available at Little Camas Reservoir and Anderson Ranch Reservoir.

4.5.3.2.5 Potential Mitigation Activities

Grazing by cattle has significantly reduced the fine fuels that can quickly carry a fire to a home site. Any mitigation activities should emphasize establishing a defensible space around each home. A lean, clean, and green area of 100 feet around each home should effectively reduce the risk of casualty loss. Trees within the 100-foot zone should be isolated and pruned to minimize the risk of a fire reaching the tree crown. A homeowner education program should be

implemented to advise homeowners about 'firesafe' landscaping and home construction materials.

Home defensibility around the structures in and around Dixie is very important. Because there is no rural fire protection in this area, and wildland protection resources are not local, the responsibility of making a clean, green zone, devoid of wildland fuels around each home is very important. Posting signs along Highway 20 and the major access routes in this area that read "Approaching *Our* Community, Please be Fire Safe!" (or something like that) may help to reduce the human caused ignitions surrounding Dixie as it increases the awareness of motorists about rural communities in the Wildland-Urban Interface.

The abundance of sagebrush is very high in this area, and the sagebrush is competing aggressively against the beneficial grasses available for grazing. To increase the abundance of grasses for grazing purposes while reducing fire spread risk, a prescribed burn could be implemented. The burn could reduce the amount of sagebrush and thereby allow additional habitat for beneficial grasses. By increasing the amount of grass available and implementing a grazing management program, overall fire risk can be reduced while available AMU's could potentially be increased.

4.5.3.3 Pine, Featherville, and Fall Creek

Pine is located near the head of Anderson Ranch Reservoir. Featherville is located approximately 10 miles north of Pine. Both communities have homes dispersed into the cover of ponderosa pine and Douglas-fire trees with broader areas of sagebrush and grasses surrounding them. Dispersed, self-contained recreation can be found along the entire length of the reservoir. Boating, ATV use, and camping are common in the Pine and Featherville area. Many unsecured campfire rings can be found in areas frequented by recreation users. Ignition potential from human caused sources is very high and fire could spread rapidly up the steep slopes surrounding the reservoir once ignited.

4.5.3.3.1 Fuels Assessment

Fuel models 1, 2, 8, and 10 are the most common in this region and are very intermixed. Generally, low intensity fires burn in the grass and sage fuel types, while higher intensity fires are typical in the timber types. The fine, flashy type fuels that are found in fuel models 1 and 2 can quickly propagate a fire into the heavier fuels found in fuel type 10. Most of the timber is located in pockets on north aspects. Mountain big sagebrush and grasses dominate the vegetation on south slopes and between the pockets of timber. Ponderosa pine and Douglas-fir are the most common species in the timbered areas.

4.5.3.3.2 Infrastructure

Local supply power lines are located along local access routes.

4.5.3.3.3 Escape

Primary access to and from Pine is provided by a paved road from Mountain Home (via Dixie then Pine) which follows the eastern side of Anderson Ranch Reservoir. This road has twists and turns, but is generally a very acceptable road for all ingress and egress. Secondary access is provided along the west side of Anderson Ranch Reservoir (via Dixie then crossing the Anderson Ranch Reservoir Dam then to Pine). However, this road is gravel, narrow in places,

experiences heavy recreational access at times, and takes two to three times as long to traverse as does the paved road to the east of Anderson Ranch Reservoir. As an alternative route to Pine, it is acceptable. Access to Featherville is made through Pine along a paved road on the west side of the river. A gravel road is located on the east side of the river, but would provide little alternative access to the superior paved road paralleling it as they are within sight of each other.

The access between Pine and Featherville can be improved by controlling fuels along the travel corridors, especially where homes are also located. This may include removing brush, pruning trees, and "cleaning up" the areas where the highest concentrations of fuels are located.

Road signing is excellent in this area as nearly every road has a name and sign, along with the US Forest Service road number. This practice should be continued as new roads are constructed.

4.5.3.3.4 Community Assessment

Pine and Featherville have many homes in the 'rural condition' and several recreational homes exist in outlying areas. There is no provision of structural fire fighting equipment for either community. The only equipment available are from a private source, "Allen's Water Tenders", but this equipment may likely be contracted on a wildfire miles away from Pine or Featherville.

An excellent source of water is available for fire suppression from the Anderson Ranch Reservoir. Both communities also have 911 services available through the Mountain Home dispatch center and nearly every home has a phone. Intermittent cell phone service is also available throughout much of the area.

Located between Pine and Featherville is a small cluster of houses situated along Grouse Creek road. This area meets the classical definition of the wildland-urban interface condition and has been identified by the local sheriff's deputy as a local high priority. Several of the homes in this area directly abut the wildland and there are several 'non-firesafe' construction issues with these homes. Within this area are several patches of dead and dying ponderosa pine and Douglas-fir. Although the access to this area is good, the topography of the area could create conditions leading to a fast spreading wildfire. This small community would be a prime area for a more intensive fuels treatment project.

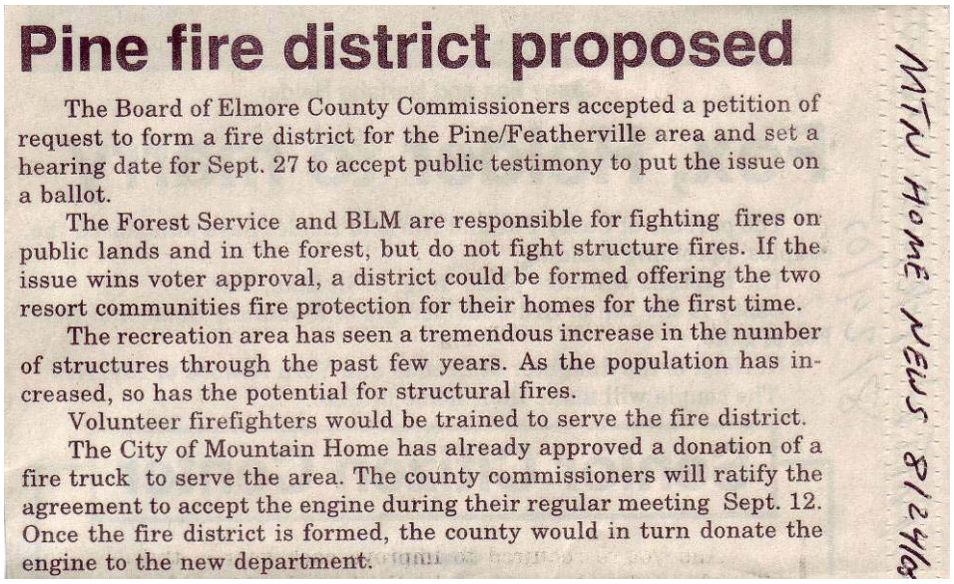
While the focus of many fuels reduction projects are targeted at reducing the threat that a wildland fire will threaten homes, the situation may be slightly reversed in this community. In addition to a threat from wildfires, local homes are at risk from a structure in the community catching fire, spreading to surrounding fuels, then spreading to another structure and so on. This has happened in other communities and is a real possibility in all of the Pine – Featherville corridor. Controlling fuels in a home defensibility zone around each structure is critically important.

4.5.3.3.5 Potential Mitigation Activities

Creating a home defensible space around each home in the wildland-urban interface should be the primary objective in the Pine-Featherville area. Considering the relatively flat topography the communities are located in, a lean, clean, and green zone of 150 feet should be sufficient to reduce the risk of casualty loss. Within this zone, trees should be pruned, ladder fuels should be reduced, and trees should be thinned. Brush species and sagebrush species should be thinned in this defensible zone to insure that fire is not carried to the homes. A wind-driven fire is the greatest risk to these communities.

These communities have a population base scattered over a fairly finite area extending north and south in the valley bottom. The creation of a rural fire protection district is strongly recommended. This issue was discussed during the public meetings held in the autumn of 2003. The need is recognized by the local residents, however, as some pointed out, fire fighting is a young person's task and most of the residents are retired. Many questions were asked about the newly formed Oasis Rural Fire Department and how they created that fire district. A fire station located roughly between the two communities with a structural engine, wildland engine, and water tender would be a great start for these communities. Recruiting volunteers who are available to receive training will be a significant step in this process. One final note on this topic, the other rural fire district personnel in attendance at the public meeting made a commitment to assist these communities in their efforts if that assistance is desired.

Since the start of this plan the Pine-Featherville area has been actively pursuing the creation of a structural fire district. The county commissioners support this action and have been active in helping the area form its own fire district.



Pine fire district proposed

The Board of Elmore County Commissioners accepted a petition of request to form a fire district for the Pine/Featherville area and set a hearing date for Sept. 27 to accept public testimony to put the issue on a ballot.

The Forest Service and BLM are responsible for fighting fires on public lands and in the forest, but do not fight structure fires. If the issue wins voter approval, a district could be formed offering the two resort communities fire protection for their homes for the first time.

The recreation area has seen a tremendous increase in the number of structures through the past few years. As the population has increased, so has the potential for structural fires.

Volunteer firefighters would be trained to serve the fire district.

The City of Mountain Home has already approved a donation of a fire truck to serve the area. The county commissioners will ratify the agreement to accept the engine during their regular meeting Sept. 12. Once the fire district is formed, the county would in turn donate the engine to the new department.

MTN HOME NEWS 8/24/05

4.5.3.3.5.1 Grouse Creek Treatment Area

Project Area Description: The Grouse Creek Treatment Area project includes all the structures located along Grouse Creek Road, east to Grouse Creek.

This area is characterized by a very xeric environment dominated by scattered ponderosa pine, Douglas-fir, heavy brush and grasses. The draw in which most of the houses are located could function as a "chimney" in the event of a wildfire which could cause the fire to spread rapidly up the canyon.

Concerns: The primary concern with this area is the xeric timber type in conjunction with a moderate gradient and upslope prevailing winds. This combination can lead to rapid fire spread and a high probability of a crown fire, which could result in the loss of homes. This area has been identified by the local sheriff's deputy as having a high risk to casualty loss due to a wildland fire.

There are many issues with home construction and landscaping in the project area. Most notably, cedar shake roofs and cedar siding are frequently used as construction materials. Several of the properties have been built in the timbered draw, which may funnel fire directly

towards the structures. Trees commonly abut or overtop the homes. The use of 'non-firesafe' landscaping vegetation immediately adjacent to the homes is common. The defensible space around many of the properties is little to none. Several pockets of dead and dying timber were observed in this area which could facilitate a fire moving from the surface into the tree crowns.

Sources of ignition are widespread and common on the Grouse Creek project. Recreational use near the river is frequent. Lightning storms traveling up the canyon are also common.

Prescription: Considering the close proximity of homes to one another, the Grouse Creek project area could be treated as a single entity. An assessment of the entire community should be accomplished first. This assessment would include meeting with the homeowners to develop a plan that effectively reduces their risk to wildland fire. The evaluation will also be used to prioritize higher risk areas in the community. To increase the likelihood of structure preservation, a lean, clean, and green zone needs to be established around the entire community. A defensible space of 250 feet surrounding the border of the community is recommended for this xeric environment. Diseased, dead and dying trees should be removed regardless of spacing. Trees selected for removal should be dragged with limbs, to an on-site chipping location. Additionally, pruning on each tree within the defensible zone would maximize the probability that the fire would remain on the ground. Removal of additional ladder fuels such as brush, regeneration, and slash within the defensible space and maintaining a green lawn around each home is recommended to prevent a wildland fire from reaching homes. Trees within the border of the community should be isolated from one another to prevent a crown fire and reduce spotting potential.

A comprehensive landowner educational program should be developed to address issues that the landowners can mitigate on their own. This program should concentrate on items such as proper 'firesafe' landscaping techniques, appropriate home construction materials, and easily identifiable addressing of homes. Individual home assessments can be used as an effective educational tool to further promote awareness. Additional emphasis should be made to ensure landowner maintenance of defensible space around homes. An evacuation plan specific for each residence should be developed in collaboration with the local law enforcement (County Sheriff). Ideally, a rural fire department will be created to serve this area and take on the responsibility of working with the local residents.

4.5.3.3.5.2 West Side Anderson Ranch Reservoir Treatment Area

Project Area Description: The West Side Anderson Ranch Reservoir Treatment Area project stretches from the south end of Anderson Ranch Reservoir along the west side of the reservoir where structures are located, all the way to Pine. A very large area, this zone is home to many permanent homes and recreational sites.

The majority of this area is characterized by a steep, predominantly east facing slope (very irregular). This zone is the intermix of rangeland and forestland vegetation communities dominated by scattered ponderosa pine, Douglas-fir, sagebrush and grasses.

Concerns: There are many structures scattered throughout the project area. The primary concern with this area is the xeric vegetation type in conjunction with a severe gradient and upslope prevailing winds. This combination can lead to rapid fire spread and a high probability of a crown fire, which could result in the loss of homes. This is coupled with high risk structure factors of limited access and wildland fuels overtopping both access routes and the homes.

There are many issues with home construction and landscaping in the project area. Most notably, cedar shake roofs and cedar siding are frequently used as construction materials. Several of the properties have been built in timbered draws, which may funnel fire directly

towards the structures. Trees commonly abut or overtop the homes. The use of 'non-firesafe' landscaping vegetation immediately adjacent to the homes is common. The defensible space around many of the properties is little to none.

The main access route into the project area is the Pine-Featherville Road, which has a good gradient, and has several turnouts. Access to individual homes is commonly by private, narrow, overgrown driveways with no turnouts and only one direction for ingress and egress. Fire fighting equipment would have no method to turn vehicles around or even reach many of the structures.

Sources of ignition are widespread and common on the Pine-Featherville project. Recreational use near the reservoir by boaters, fishermen, campers, and all terrain vehicles is frequent. Evidence of campfires outside of established campfire rings is widespread.

Prescription: Individual home and business assessments for those structures that are in the wildland-urban interface should be administered first. These assessments would document individualized treatments and include a meeting with the homeowner to develop a plan that effectively reduces their risk to wildland fire. The evaluations will also be used to prioritize higher risk homes. To increase the likelihood of structure preservation, a lean, clean, and green zone needs to be established around every home. Once home site defensible plans are completed, a comprehensive cost estimation can be determined and then implemented.

A comprehensive landowner educational program should be developed simultaneously to address issues that the landowners can mitigate on their own. This program should concentrate on items such as proper 'firesafe' landscaping techniques, appropriate home construction materials, and easily identifiable addressing of homes. Individual home assessments can be used as an effective educational tool to further promote awareness. Additional emphasis should be made to ensure landowner maintenance of defensible space around homes.

The access and escape routes within the West Side Anderson Ranch Reservoir Treatment Area are generally adequate and most of these roads have good signage. However, some roads need concentrated mitigation activities. Many of the recreational homes are constructed on steep, winding, and overgrown roads that would not serve as adequate escape routes or access roads for emergency personnel.

4.5.3.3.6 Coordination with the Comprehensive Plan

The Elmore County Comprehensive Growth Plan (2004) details the following General Statements of Community goals for Pine, Featherville, and Fall Creek. These goals are incorporated into this plan and are consistent with this intent of this planning effort.

9. **Natural Resources** - Protect the Anderson Ranch Reservoir, the South Fork of the Boise River and all waterways in the Pine / Featherville / Fall Creek community areas from incompatible land use encroachment and development. Support advanced wildfire-fighting capability to protect the area from wildfire damage. Re-vegetation to occur after all wildfires. Encourage and support mining and timber harvest to develop and continue in the Pine / Featherville / Fall Creek areas.
10. **Hazardous Areas -** In any area deemed hazardous by County Officials, require a Conditional Use Permit procedure as a method of controlling or limiting development.
11. **Public Services, Facilities and Utilities -** Establish a new zip code for the three communities. Develop a new US Post Office to serve the Communities. Continue to expand the electrical systems to get reliable three-phase power throughout the community and outlying areas at reasonable cost. Support creation of a community fire

district including a heated building for fire equipment and an ambulance. Upgrade to a modern, centralized community solid waste transfer facility. Create a system of recreational trails for year-round use. Support expansion of services to accommodate summer/winter residents and visitors. Support upgrading telephone service. Seek to install a community sign/message board near the entrance to each community to provide useful information.

4.5.3.4 Prairie

Prairie is located 26 miles west of Pine, and 45 miles east of Boise. A rural community with ample scenic beauty, Prairie is situated on the plateau above Long Gulch at an elevation of nearly 5,000 feet. Homes in this community are situated between the thick and abundant sage brush and bunch grasses and clumps of ponderosa pine that give way to thicker and expansive forest tree species. Many of the homes of this community are scattered into the landscape, giving nearly every home a full interface WUI situation to deal with.

4.5.3.4.1 Fuels Assessment

Fuel models 1 and 2 are the most common in the rangelands while fuel models 8 and 10 are more common where forest tree species are to be found. Fires in FM 1 and FM2 fuel types tend to burn at a low intensity but spread rapidly. This community is surrounded by agricultural fields and rangelands and scattered pockets of timber. Adhering to its namesake, this community is located on a relatively flat prairie adjacent to the Boise National Forest. There are discontinuous clusters of Douglas fir and ponderosa pine throughout the community.

Past and on-going management of the forestlands in this area demonstrates that the local land managers are implement forest management activities in such a way to make areas surrounding the community defensible against wildfires encroaching on the community. Thinning operations, road building, and other forest management activities reduced the fuels buildup while making the area more defensible.

Similarly, livestock ranching in the area was observed as being managed well; livestock were well distributed, herds were manageable in size, and fencing was in good shape. These livestock animals serve to keep many of the fine fuels grazed, while ranchers in the field keep an eye out for wildfire ignitions.

4.5.3.4.2 Infrastructure

Local supply power lines are located along local access routes.

Prairie is located near the geographical middle of Elmore County and has few resources available for structure protection. The community of Prairie has one fire engine capable of fighting a wildland fire. However, there is no rural fire district serving this community.

4.5.3.4.3 Escape

Multiple access points are available for the residents and visitors of Prairie to use in the case of an emergency, leading in all cardinal directions.

4.5.3.4.4 Community Assessment

Some of the structures that are situated in “Prairie Proper” already have an established defensible space that includes a lean, clean, and green zone around the home. However,

several structures are located outside of the concentration of homes in the wildland-urban interface. These homes could benefit from a fire mitigation project to increase the defensible zone around them. Trees should be thinned, pruned, and isolated so the probability that a crown fire becomes established is minimal.

4.5.3.4.5 Potential Mitigation Activities

The fuel buildup around homes is the limiting factor for Prairie. The reduction of fuels around homes would serve to link the land management activities around Prairie, with defensible sites around the homes and their infrastructure.

The creation of a formal rural fire protection district is strongly recommended. This issue was discussed during the public meetings held in the autumn of 2003. The need is recognized by the local residents as evidenced by the acquisition of fire fighting equipment by local residents. A fire station located in the center of the community with a structural engine, wildland engine, and water tender would be a great start for this community. Recruiting volunteers who are available to receive training will be a significant step in this process. Future development of this fire district would be enhanced by water storage capabilities in and around this community.

A homeowner education program should be implemented to advise homeowners about 'firesafe' landscaping and home construction materials. Given the rural nature of this community, and observations made while visiting with local residents, it is obvious that many living here are very aware of the need for fuels mitigation around the community. No doubt the proximity of the Foot Hills Fire has contributed to this awareness and need.

4.5.3.4.6 Coordination with the Comprehensive Plan

The Elmore County Comprehensive Growth Plan (2004) details the following General Statements of Community goals for Prairie. These goals are incorporated into this plan and are consistent with this intent of this planning effort.

12. **Natural Resources** - Protect Smith Creek and all waterways and the Prairie rural and community areas from incompatible land use encroachment and development. Support advanced wildfire-fighting capability to protect the area from wildfire damage. Encourage re-vegetation to occur after all wildfires. Encourage and support mining and timber harvest to develop and continue in the Prairie area.
13. **Hazardous Areas -** In any area deemed hazardous by County Officials, require a Conditional Use Permit procedure as a method of controlling or limiting development.

4.6 Fire Fighting Resources and Capabilities

The Fire Fighting Resources and Capabilities information provided in this section (3.4) is a summary of information provided by the Rural Fire Chiefs or Representatives of the Wildland Fire Fighting Agencies listed. Each organization completed a survey with written responses. Their answers to a variety of questions are summarized here. ***In an effort to correctly portray their observations, little editing to their responses has occurred.*** These summaries indicate their perceptions and information summaries.

4.6.1 Wildland Fire Districts

4.6.1.1 Bureau of Land Management, Lower Snake River District

- Boise BLM Fire Office, 3948 Development Ave., Boise, 83705; 208-394-3400
- Hammett Guard Station, north of Exit 112 on Interstate 84, 208-366-7722
- Bruneau Guard Station, Hot Creek Road, Bruneau, 208-845-2011
- Wild West Guard Station, Exit 13 off I-84, 208-454-0613

The Lower Snake River District BLM encompasses approximately 5.5 million acres of BLM-managed land in southwest Idaho. Through agreements with the Idaho Department of Land and the National Forest Service, the BLM also provides initial suppression on IDL and FS lands in some areas within the district boundary. The border of the district extends from the Nevada border near Jackpot and runs north along Salmon Falls Creek; just west of Hagerman and follows the Snake River from just south of Bliss to King Hill; then runs northto a point approximately 7 miles west of Hill City; then follows the foothills west and north across the Boise Front; up Highway 55 and includes some scattered areas into the Crouch area; then jogs in a northwesterly direction to the Oregon border near Cambridge.

Special features within the district include the 485,000-acre Snake River Birds of Prey National Conservation Area; the Owyhee Canyon lands; portions of the north and south fork Payette River corridors; the Owyhee Mountains, including the historic Silver City area; the Jarbidge and Bruneau river canyons; and several popular recreation areas and wildland-urban interface areas.

The district's primary station is located in Boise, where 3 crews are based, along with both helicopter and fixed-wing aircraft resources. One of the three Boise crews is stationed during the day at Boise Fire Station #2 at the base of the foothills. Additional day-use stations are available in Kuna, Hidden Springs, Eagle, and at Juniper Butte.

Additionally, the district has out stations at Bruneau, Hammett, and Wild West (at Exit 13 on Interstate 84). One crew, staffs each facility with three engines, on a 24-hour, 7-day per week basis from mid June to mid September. A dozer also is typically based at Hammett.

BLM crews are neither trained nor equipped for structure suppression. Primary protection responsibilities are on public land throughout southwest Idaho and we respond to fires originating on public lands and those on private land that threaten public land. Additionally, through mutual aid agreements with local fire departments, we will provide assistance when requested on wildland fires.

The BLM does not provide formal EMT services. Our crews are trained in first-aid, and some staff members have EMT and first-responder trainee, but this is not a service we provide as part of our organization.

Personnel: The fire program staff totals 135 individuals, including 20 permanent employees, 40 career-seasonal employees who work up to nine months each year, and 75 seasonal employees on staff from roughly June to September. These are all paid staff members trained in wildland fire, but not in structure protection.

Mutual Aid Agreements: We have an interagency working relationship with the US Forest Service (Boise National Forest) and the Idaho Department of Lands and our crews are dispatched on a closest-forces concept to public lands. Additionally, we have mutual aid agreements with approximately 42 community fire departments.

Top Resource Priorities:

- **Training:** Increasing the amount and level of training for and with partner community fire departments.
- **Communications:** Being able to purchase radios for partner community departments to facilitate communication, coordination, and safety at the fire scene.

The district encompasses a broad spectrum of resources at risk, including recreation sites, power lines, wildlife habitat, wilderness study areas, wild horse management areas, historic districts, cultural and archaeological sites, and a range of vegetation types, from rare plant species to sagebrush and timber resources.

Wildland-urban interface areas are found throughout the district. There are two top priority areas within the district: 1) the wildland-urban interface area across the Boise Front, from Highway 21 near Lucky Peak Reservoir; and 2) the Snake River Birds of Prey National Conservation Area along the Snake River. Bordering the SNRBOPNCA on the north is wildland-urban interface areas of concern near the community of Kuna.

Beyond these two top priority areas are wildland-urban interface areas across the district, from Jackpot, Nevada to Cambridge and Council. Table 3.1 summarizes available equipment.

Table 4.2. BLM Equipment List for Wildland Fire Protection

Truck #	Assigned Station	Make/ Model	Capacity (gallons)	Pump capacity (GPM)	Type
7158	Duck Valley	Internat'l	Heavy 800 – 1000	120 GPM	Wildland
7130	Boise	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7131	Boise	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7132	Boise	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7133	Boise	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7134	Boise	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7135	Boise	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7136	Boise	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7137	Boise	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7138	Boise	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7154	Boise	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7155	Boise	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7143	Hammett	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7144	Hammett	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7145	Hammett	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7146	Bruneau	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7147	Bruneau	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7148	Bruneau	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7140	Wild West (exit 13, I-84)	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7141	Wild West (exit 13, I-84)	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7142	Wild West (exit 13, I-84)	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7150	Boise	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7151	Boise	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7156	Boise	Internat'l	Heavy 800 – 1,000	120 GPM	Wildland
7161	Boise	Ford	Light 300	120 GPM	Wildland

- The LSRD has 3 dozers, one of which is stationed in Hammett; and two in Boise
- The LSRD also has 3, 3500 gallon water tenders.

- There are 4 Fire Lookouts, one on Squaw Butte, north of Emmett; one on South Mountain, southeast of Jordan Valley; one on Danskin Peak, north of Mountain Home; and one on Bennett Mountain, northeast of Mountain Home.

Additionally, suppression resources include:

- **Helicopter:** The district has an Aerospatiale helicopter on contract from June to October and an 11 member Helitack crew. U.S. Forest Service Helitack crews stationed at Lucky Peak and Garden Valley are available for assistance if needed and if they are not assigned elsewhere. Additionally, there are other helicopter resources equipped for fire missions that are available on a call-when-needed (CWN) basis.
- **Fixed-Wing:** The district has an Aero Commander 500S fixed-wing aircraft, staffed by a pilot and the air attack supervisor. The air attack supervisor coordinates aerial firefighting resources and serves as an observation and communications platform for firefighters on the ground.
- **Air Tankers:** There are typically two air tankers (fire retardant planes) on contract in Boise during the fire season. However, these aircraft are considered national resources and are assigned where they're needed at any particular time. Other, nearby, air tankers are located in McCall and various locations in Nevada and Oregon.

The primary operational challenges facing the district include:

- Continued development of wildland-urban interface areas across the district.
- Communications and coordination with current, new, and developing community fire departments and working with them to stay abreast of communication and technological developments so that we can continue and improve working together effectively at the fire scene.
- Internally, an operational challenge is to have sufficient and appropriate staff available throughout the year to foster partnerships with local departments and facilitate continued and improved coordination, training, communications, and other joint efforts with our partners across the district.
- Our effectiveness in addressing these challenges will largely hinge on funding available for the fire program and its various elements.

Resource Needs:

- Training: Increasing the amount and level of training for and with partner community fire departments.
- Communications: Being able to purchase radios for partner community departments to facilitate communication, coordination, and safety at the fire scene.

Our effectiveness in addressing these challenges will largely hinge on funding available for the fire program and its various elements.

4.6.1.2 Boise National Forest, South Zone FIRE Organization

- Boise Front Office, 3948 Development Ave, Boise, 83705; (208) 384-3215
- Mountain Home Ranger District, 2180 American Legion Blvd, Mountain Home, 83647; 208-587-7961
- Lester Creek Guard Station, 2221 Lester Creek Rd, Pine, 83647; (208) 653-2358
- Lucky Peak Fire Station, 15169 E. Hwy 21, Boise, 83716; (208) 373-4410

- Idaho City Ranger District, 3833 Hwy 21, Idaho City, 83631; (208) 392-6681

The Boise National Forest encompasses approximately 2.27 million acres of National Forest System land in Southwest Idaho. Through agreements with the Bureau of Land Management and Idaho Department of Lands, the Boise NF provides initial suppression on Lower Snake River District BLM and Southwest IDL lands in some areas within and adjacent to the Forest boundary.

Fire suppression resources on the Boise National Forest are organized into a North Zone, South Zone, and Supervisor's Office. In addition, the Boise NF is a partner in the Boise Interagency Logistics Center, the interagency dispatch office shared between BLM, IDL, and USFS.

Fire protection for Boise National Forest jurisdiction lands and Boise NF protection lands within Elmore County are under the primary responsibility of the South Zone FIRE organization. The South Zone FIRE organization consists of 95 permanent and seasonal fire fighters located at fire stations on the Mountain Home and Idaho City Ranger Districts. Supervision of the South Zone's fire suppression resources are the responsibility of a Zone Fire Management Officer, a Zone Fuels Officer, two Suppression Assistant Fire Management Officers, two Fuels Assistant Fire Management Officers, a Helitack Foreman, and an Interagency Hotshot Crew Superintendent.

Table 4.3. USFS South Zone Resources for Wildland Fire Protection

Assigned Station	Resource	Type	# Fire Fighters
Boise Front Office	Zone FMO	Division Chief	1
	District Fuels AFMO	Fuels Specialist	1
Mountain Home RD	District AFMO	Battalion Chief	1
Lester Creek Guard Station	Engine-11	Type 4 Wildland Engine	7
	Crew-11	Type 2	6
	Prevention-11	Prevention Officer	1
	Patrol-12	Type 7 Patrol Engine	1
	Trinity Lookout	Staffed lookout tower	1
Lucky Peak Fire Station	Boise Helitack	Type 2 Exclusive Use Helo w/ 12 person I.A. module (rappel capable)	12
	Engine-21	Type 4 Wildland Engine	7
	Prevention-21	Prevention Officer	1
	Patrol-22	Type 7 Patrol Engine	1
Idaho City RD	Zone Fuels Officer	Division Chief	1
	District AFMO	Battalion Chief	1
	District Fuels AFMO	Fuels Specialist	1
	District Fuels Technician	Fuels Technician	1
	Engine-31	Type 4 Wildland Engine	7
	Crew-3	Type 2 I.A. Crew	20
	Prevention-31	Prevention Officer	1
	Patrol-32	Type 6 Patrol Engine	1
	Sunset Lookout	Staffed lookout tower	1
	Idaho City IHC	Type 1 Interagency Hotshot Crew -National Shared Resource	20

Season of Availability

Permanent and permanent-seasonal fire managers and supervisors are on duty throughout most of the calendar year, depending on their length of tour. Fire Managers maintain a year-round staffing at the Boise Front Office, Mountain Home RD, and Idaho City RD. Lester Creek Guard Station and the Lucky Peak Fire Station are staffed during the period from mid-April until late November. The Boise National Forest's established fire season is from June 1 through end of October.

Seasonal fire fighters (engine, hand crew, Helitack, hotshot, prevention, lookouts) are brought on duty and staff their fire stations from mid-May to late October. Depending on seasonal variability, those resources may become available for fire suppression earlier in the spring and remain on duty longer into the fall.

Aviation

The Boise Helitack Module at Lucky Peak Fire Station staffs a Bell 212 Type 2 helicopter based a 100-day availability exclusive-use contract. The twelve-person Helitack module is rappel certified, and are available for local initial attack and wildland fire assignments off-forest.

In addition to the South Zone's Helitack crew, the North Zone FIRE Organization of the Boise NF maintains a Bell 407 Type 3 helicopter based on a 110-day availability exclusive-use contract at the Garden Valley Fire Station. The Garden Valley Helitack Module is also rappel certified, and are available for local initial attack and wildland fire assignments off-forest.

The Boise NF maintains a National Shared Resource (NSR) Retardant Base, located in Boise. The Forest also 'hosts' two air tankers on national contract during the fire season, although the air tankers may be assigned elsewhere during the season as needed.

Mutual Aid Agreements

There are Cooperative Fire Protection Agreements and strong interagency working relationships with the Bureau of Land Management (Lower Snake River District) and the Idaho Department of Lands (Southwest), as well as the State-wide Annual Operating Plan for BLM, USFS, and IDL within the state of Idaho. In addition to these agreements, all three agencies are partners in the centralized Boise Interagency Logistics Center (BILC) for dispatching and coordination during the fire season.

Fire suppression resources are typically dispatched by BILC on a closest-resource concept, regardless of land jurisdiction. Dispatching of resources follows interagency Wildland Fire Computer Aided Dispatch (WILDCAD) protocols, and are mutually supported by the three land management agencies. All Southwest IDL lands within Elmore County fall under either USFS or BLM protection.

In addition to mutual aid agreements with BLM and IDL, the Boise NF also provides fire protection for land administered by the Sawtooth National Forest within Elmore County, and similarly, the Sawtooth provides fire protection for portions of the Boise NF.

Operational Challenges

Continued development of wildland-urban interface and intermix areas within Elmore County, especially in the Pine-Featherville area, and townsite of Atlanta.

Lack of a rural or volunteer fire district in the Pine-Featherville area. USFS initial attack resources stationed at Lester Creek are heavily relied upon by the Elmore County Sheriff to respond to an increasing number of incidents, ranging from wildland fires to traffic or medical incidents.

Long response time to Atlanta. The response time from any of the four fire stations on the South Zone to Atlanta is 1.5 to 2.5 hours by vehicle, and 25 minutes by helicopter. There is a heavy reliance of early detection by lookout towers, aerial detection platforms, or the Atlanta VFD.

The increasing number of recreational visitors to the National Forest in key areas such as Anderson Ranch Reservoir, the South Fork Boise River, Middle Fork Boise River, Fall Creek, Trinity Lakes. Hunting seasons in the late summer and throughout the fall bring an additional high number of visitors to the Forest. Prevention and patrol efforts can help mitigate the risk of human-caused fires, but additional outreach and educational programs need to be developed and implemented.

Internally, operational challenges are to have sufficient and appropriate staff available throughout the year to provide fire protection staffing, depth of organization, fuels management planning and implementation, and fostering partnerships to improve coordination and joint fire suppression operations. Our effectiveness is largely dependent on funding for the fire program.

4.6.2 Structural Fire Districts

4.6.2.1 Atlanta Rural Fire Protection District

P.O. Box 63
Atlanta, Idaho 83601
(208) 864-2125

Personnel: The fire protection district is staffed by an all-volunteer staff of 10 people, including the Fire Chief.

Fire Station: 40'x24', two bay, unfinished station. Unfinished office space available upstairs.

Equipment

- 1978 Ford 350 Wildland Engine- 250 gal capacity.

The fire protection district works closely with the Atlanta Highway District. Equipment available on loan includes:

- 1965 Cat D6B
- 1979 John Deere 310A Backhoe
- 2003 John Deere 544H Loader
- 2001 Cat Grader

Misc. Equipment: 5 hp Honda pump

First Aid: Atlanta fire protection provides basic life support. Two ambulances are available and staffed as needed.

Resource Needs: Atlanta has quite a list of resource needs, for both structural and wildland fire fighting. Need to confer in order to determine what the greatest resource needs actually are.

4.6.2.2 Glenns Ferry City/ King Hill Rural Fire Department

Physical address: 136 East 2nd
Mailing address: Glenns Ferry City: P.O. Box 910
King Hill Rural: P.O. Box 472
Glenns Ferry, Idaho 83623
Tel: 208-366-2689

Both the city and rural departments are dispatched from the fire department, located in the town of Glenns Ferry. King Hill Rural is a large district with a number of cooperative agreements.

Personnel: Both the City and Rural departments are staffed on a volunteer basis. The Fire Chief and Assistant Fire Chief are paid part-time. The organization has a total of 20 firefighters.

Fire Station: The current Fire Department houses all equipment. Station capacity is nine trucks. The station is complete with a small office.

Equipment:

Structural Equipment

- 1977 Ford LaFrance 1000 gal. Pumper, 1500 gpm.
- 1987 GMC FMC 1000 gal. Pumper, 1500 gpm.
- 2000 Freightliner 1000 gal. Pumper, 1500 gpm.

Wildland Equipment

- 1982 Chevrolet 1 ton 4x4 Light brush truck. 350 gal.
- 1994 Chevrolet 1 ton 4x4 Light brush truck. 250 gal., 1200 gpm.
- 1991 Chevrolet 1 ton 4x4 Light brush truck. 200 gal.
- 1974 White 3,500 gal water tender w/ PTO.
- 1992 4x4 International, Heavy brush engine. 1,000 gal. 1200 gpm.

Ambulance/Extraction

- 1982 Ford Extraction
- 1989 International 2-ton

Cooperative Agreements: King Hill Rural has cooperative agreements with both The Upper and Lower Snake River Districts of the BLM. The Lower Snake River District stations one three-person crew with engine at Hammett. The BLM has provided assistance with training and equipment as well. King Hill also has cooperative agreements with the Bliss Rural Fire Department in Gooding County to the east, as well as with both the Mountain Home Rural and Mountain Home Air Force Base Fire Departments.

Potential Resource Needs: The district would benefit from an addition to the current Fire Department facility. At present the station cannot garage all of the vehicles. This would be desirable in order to avoid pre-mature aging from expose to the weather.

4.6.2.3 Mountain Home City/Rural Fire

590 South Main
Mountain Home, ID 83647
208-587-2117

Mountain Home fire departments have both structural, wildland fire protection duties throughout the district, as well as a Hazardous Materials unit.

Personnel: One full-time fire chief and a staff of 30 volunteers staff the fire protection district. The fire department is dispatched through Elmore County Sheriff 24 hours a day

Fire Stations/Equipment:

Rural Station 1
590 South Main

- 2002 Ford F-550 400-gal. Light Brush Unit. 120 gpm. Foam capabilities.
- 1975 Kaiser 1500-gal. Heavy Brush Unit. 120 gpm. Foam capabilities.
- 2000 General 2300-gal. Pumper/Tender. 1500 gpm.
- 1981 FMC 500 500 gal. Pumper. 1000 gmp.
- 1992 GMC 3000 gal. Tender. 500 gpm.
- 1997 International 800 gal. Brush Unit.

City Station 1
220 South 2nd East

- 1989 Pierce Quint pumper/ ladder truck 75 ft. 300 gal, 1500 gpm.
- 2005 Pierce Enforcer 750 gal tank, 1500 gpm

City Station 2
1410 North 6th East

- 2 heavy rescue extraction units
- 1993 Pierce 500 gal. Pumper, 1500 gpm. 2005 Pierce Enforcer 750 gal tank, 1500 gpm

City Station 3
595 West 8th South

- 2005 Pierce Enforcer 750 gal tank, 1500 gpm

Mutual Aid agreements: Mountain Home FD has cooperative agreements with the BLM, Forest Service and the Mountain Home AFB. Mountain Home responds to all wildland fire incidents within their protection district. Typically, the BLM and Forest Service respond as well. Mountain Home AFB will respond on a call when needed basis. Informal mutual aid agreements are also in place for assisting the Glenns Ferry/ King Hill departments.

4.6.2.4 Oasis Volunteer Fire Department

19550 N. Del Norte Pl.,

Oasis, Id. 83647.

Bob Ruth, Fire Chief. 208/796-2236

The Oasis Fire Protection District comprises an area of approximately 18 square miles of mixed private and public land mostly sagebrush and mixed grasses. The area is zoned primarily agricultural and has significant grazing of cattle mixed with residential use. The fire department has been in existence for about four years and was formed by a small group of residents who were concerned about the lack of fire protection for their properties. The Bureau of Land Management does provide fire protection under certain circumstances to the area but due to the location and time for the BLM to respond the citizens felt a more rapid response was necessary.

In these four years there has been significant progress in training and equipment with more to come as resources become available.

Personnel: The fire protection district is staffed by an all-volunteer staff of 22 people, including the fire chief.

Fire Station: There is no fire station at this time. The apparatus have to be parked outside year around. They must be drained and winterized in October and are essentially out-of-service until April. If the need arose they could be filled from the standing water tank but this does create a significant delay and seriously affects the department's capabilities. A private citizen has donated 1.8 acres of land in the center of the fire district for the site of a new fire station/community center. The district has been working with various groups in an effort to secure financial assistance to build the facility but nothing has materialized at this time.

Completion time is unknown.

Equipment:

-- 1968 Kaiser 6x6 M-35. 1100 gallon, 250 gpm wildland engine

-- 1958 Ford F-600. 700 gallon, 200 gpm wildland engine

-- Three 3/4 ton trucks with skid units of approximately 150 gallons and small pumps

-- Static water storage of 6,000 and 10,000 gallons, and a large agri-well, all for resupply

-- there has been improvement in radio communication capability due to several grants from the BLM

First Aid: Oasis does not provide formal first aid at this time. However, several departmet members are trained in various levels of pre-hospital emergency care and would respond when needed.

Cooperative agreements: Oasis has cooperative agreements with both the BLM and IDL. The BLM resources typically respond from Boise, Hammett and Bruneau, while IDL resources respond from Boise. Resources typically are ground as well as air, such as helitack and fixed wing tankers.

Future development: Oasis VFD has been working toward securing grant and private funds for the construction of a combination fire station and community center. The need for this type of facility is multi-faceted and would benefit not only the Oasis community directly but there are other far reaching advantages as well. The fire station would make possible year around fire protection by housing the apparatus inside and would be a key element in becoming a fully qualified structural fire department, which would greatly enhance the safety of its citizens. The BLM has identified this area as a high fire danger area and as such would be able to station some of their fire crews at the station during peak fire times, use the facility as a rehab facility for its crews, and in times of large campaign-type fires use the station as a command post or staging area. There is a considerable gap between resources stationed in Boise or Hammett and this would provide a reasonable mid-point to reduce this gap. The Elmore county Sheriff has also expressed his support for this facility for it would provide a place for his personnel to use in the event of situations in this end of the county. The community center would provide space for refuge to residents if evacuations are needed for fires, floods, etc. and would be a focal point for a number of community related activities. (The remaining narrative beginning with "The district would also like to see..." remains essentially the same and should be included).

Greatest resource needs: In addition to the station, Oasis is in need of a repeater base station. It was able to secure grant funding for mobile and portable radios to where its communication capability is much improved.

They have also gotten funding for a non-repeater base station expected to be be completed this year. However, due to the inherent line-of-sight characteristics of VHF communications, a repeater would greatly enhance the capability of its personnel to communicate on the fire line thus making for safer operations. A command vehicle is also very much needed. Presently, the Incident Commander must communicate with the engines and hand crews with a hand-held portable. The department has received funding for a mobile VHF radio for a command unit but at present there is no vehicle available.

Moreover, the Elmore County Sheriff has donated a UHF mobile radio for a command vehicle to enable the Oasis VFD to communicate with both the sheriff and ISP. The department needs to replace the 1958 Ford with a Heavy wildland-type engine similar to the BLM types used throughout the region.

The Kaiser would then become the second out apparatus and the Ford would be relegated to a tender. A 1000 gallon per minute, 1000 gallon tank structural engine would enable the district to advance to a structural capable department and would greatly enhance its fire fighting and rescue capabilities. The district needs to change from a volunteer subscription type district to a regular taxing district. This makes it more viable for its operations and long range planning goals. The Oasis VFD would be well advised to pursue a medical quick response unit to enable at least basic pre-hospital emergency care for not only its residents but the I-84 corridor adjacent to its district. The number of vehicle accidents in this area is increases every year and will only continue to do so.

One final issue that needs to be addressed is the expansion of the fire district to encompass the Tipanuck and Mayfield areas on the north side of

I-84 and the industrial/commercial corridor of Simco Road on the south side of I-84. These combined areas represent a substantial potential for growth, as has already been seen, and will only continue to increase. Structural and wildland fires, emergency medical responses, hazardous materials, and vehicle rescue-extrication capability must all be addressed in the near future.

4.6.2.5 Mountain Home AFB

351 Alpine St. Bldg 206
Mountain Home AFB
208-828-6235

Mountain Home AFB fire department is a federal service that has structural, wildland and aircraft crash rescue protection on 2,556 acres of the base.

Personnel: The air base fire department is manned 24 tours a day. There are 55 members of the AFB fire department, including chief and deputy chief.

Fire Station: Station 1- Built in 1998, nine drive-thru stalls, sleeps 23. Station 2- Built in 1995, two stalls, sleeps six.

Equipment:

The majority of the fire response equipment at the base are designed specifically for crash-rescue and structural needs. Only select equipment is capable of off-road use.

Structural Engines

- 1994 KME 1 4WD 1250 gpm pumper.
- 1994 KME 1 4WD1250 gpm pumper.
- 1994 KME 1 2WD1250 gpm pumper.

Haz-Mat

- 2002 Haz Mat Trailer

Crash Trucks

- 1995 P-23 3,300 gal..
- 1995 P-23 3,300 gal.
- 1987 Oshkosh 1,000 gallon (most used for wildland suppression).
- 2001 Colet, 1,500 gal.
- 1,000 gallon foam trailer.

Water Tenders

- 1994 2WD 5,000 gal. Westmark.

The department also has mutual aid agreements with the Mountain Home departments as well as with the BLM and Grand View RFP. The Hazardous Materials and extrication units are also available on a mutual aid need. Mutual aid response is contingent on activity at the air base. When multiple missions are flown from Mountain Home, the equipment may not be available in order to assure quick response in the event of a crash incident.

4.6.2.6 Grand View Rural Fire Protection

P.O. Box 54
Grand View ID
Cfireman1@wmconnect.com
208-834-2380

Grand View Rural Fire Protection District encompasses 111 sq. miles, including potions of Owyhee County, Elmore County, and the city of Grand View. The department responds to wildland, structural and agricultural fire. Grand View has mutual aid agreements with the surrounding fire protection districts, as well as with the BLM

Personnel: Grand View has a total of ten volunteer positions, including the chief and assistant.

Fire Station: The fire station is a single level, five bay facility.

Equipment:

Wildland Engines

- 1994 Ford F-350, 300 gallon.
- 1995 GMC 3500, 275 gallon with foam capabilities.
- 1978 Ford F-7000, 1,000 gallon.

Structural Engines

- 1961 Howe International, 500 gallon
- 1974 American Lafrance 500 gal. Pumper, 1000 gpm.
- 1978 American LaFrance 500 gal. Pumper, 1250 gpm.

Water Tenders

- 1984 Kenworth, 3,000 gallons (will be operational in the summer of 2004).

First Aid: Grand View provides Basic Life Support (BLS)

Resource Concerns within the district: In addition to protection of life and homes, Grandview RFD has significant economic resources that are potentially threatened by fire. Simplot owns the majority of the district within Elmore County. Much of this land is cultivated hay. Historically, the ridge above the feedlot has experienced a high number of fires, potentially due to the presence of power transmission lines. The hay resources are seen to be at some risk to loss from fires originating from this or some other ignition source.

4.7 Issues Facing Elmore County Fire Protection

Lack of Communications with Army Bombing Range- There has been an inability to communicate with Army resources when responding to mutual aid fires involving Army lands. Communications need to be established between the Army and surrounding RFD's in order to fight fires safely and effectively. The Army should be incorporated into this planning activity.

Tipanuk Area - Residents in the Tipanuk area are without any form of structural fire protection, Tipanuk residents are not subscribing members to the nearby and newly created Oasis fire department. The BLM has wildland fire protection in the area, however the response time for BLM resources responding from Boise is considerable. Fast moving range fires could easily move into the settled area prior to the arrival of BLM resources. The residents are not willing to pay, on either a tax or subscription basis. Although Oasis does not currently have structural fire capabilities, the department does plan on assuming structural protection in the future. Certainly, the proximity of the wildland resources of the Oasis department would reduce the potential for loss to range fires, if the residents were willing to pay for protection.

Oasis Area – Access to homes in the Oasis area is not conducive to quick response by emergency vehicles. Many of the existing roads do not provide thru access, which increases response times by emergency personnel due to the longer routes around. A road from the Simco/Desert Winds roads intersection to the north end of Ditto Creek is needed for access and egress for the families in this area to provide a direct route in the event of an emergency evacuation. There is only one way in and one way out at this time. Also, the Merv Landing Road should link up with Soles Rest Creek and it too should then go to Ditto Creek. This would be very advantageous for fire access and/or emergency evacuations.

4.8 Current Wildfire Mitigation Activities in Elmore County

Permanent Fuel Break along I-84- The BLM is currently working to establish a permanent fuel break along the I-84 corridor from Stage Stop to Glenn's Ferry in order to reduce the potential for ignitions originating from the highway to spread into the surrounding lands. The BLM plans to spray the herbicide "Plateau" along the interstate in order to reduce the prevalence of cheatgrass, an exotic grass species that is highly flammable and invasive. Treated areas would then be replanted with Crested Wheatgrass, which is considered to be a retardant (less susceptible) to fire spread.

SCA Home Evaluations- The Student Conservation Association-Fire Education Corps. conducted home defensibility assessments in the Featherville area (2003-04). The Student Conservation Association's Team Duck Valley was brought in by the Bureau of Indian Affairs and the Southwest Idaho RC&D to educate home owners on the value of defensible space in the event of a wildfire.

Due to the geographical and cultural diversities of these two sites (Pine-Featherville vs. Duck Valley Indian Reservation), different methodologies were used with different goals in mind. On the Duck Valley Indian Reservation, the residents are very familiar with the effects of wildfire due to the large number of people employed by the Shoshone-Paiute Fire Department. Therefore, the team established action as being the most important goal. In the Pine/Featherville corridor in Idaho, education and exposure became the primary goals. They discovered that many people had vacation homes there and did not realize that there were ways to improve the vegetation around their "get-aways" without altering the landscape in a negative way. The residents on the reservation were less concerned with the aesthetic and more concerned for their homes and elders' safety.

Team Duck Valley utilized many different methods of outreach to accomplish these goals including: home evaluations (risk assessments), educational community meetings, newspaper articles, fire tips of the week, canvassing with educational material, a mass mailing, presence at a public event, and fuel reduction demonstrations.

The accomplishments for the 2003 fire season are as follows:

- Completed 69 home evaluations for fire risk assessment
- Plotted and data collected all 69 home evaluations with GPS unit
- Mass mailing pertaining to fuels reduction to 443 residents
- Canvassed 128 homes with wild fire education literature
- Organized and completed 4 fuel reduction demonstrations
- Held 4 community education meetings featuring highlights from the "Living with Fire" presentation applicable to correct vegetation zone
- Conducted 1 campfire presentation for youth discussing campfire safety
- Displayed table at 4th of July public event
- Displayed at Pine Senior Center reviewing fuels reduction success and providing information for future reductions with community involvement
- Published 4 Articles in Local Newspapers throughout fire season
- Posted weekly tips for defensible space
- Assisted County and Reservation Fire Mitigation Work Groups
- Participated in Fuel Reduction Demonstration for Garden Valley
- Collected vegetation information for area not previously surveyed
- Assisted with and participated in all Tribal Emergency Response Commission meetings and workgroups
- Organized planning committees for implementation of E-911 program
- Collected and processed data for E-911 program, creating an updated structure layer for tribal use